Claims:

1. Use of herpesviral VP22 protein or of another protein which has sequence homology with VP22 and a microtubule binding function of VP22, or a derivative thereof, to stabilise animal cellular microtubules.

2. A method of retarding or arresting growth and cell division, or inducing cell death, of an animal cell which comprises exposing said cell to herpesviral VP22 protein or of another protein which has sequence homology with VP22 and a microtubule binding function of VP22, or a derivative thereof, in an amount effective to stabilise the microtubules of said cell.

3. Use of herpesviral VP22 protein or of another protein which has sequence homology with VP22 and a microtubule binding function of VP22, or derivative thereof, for delivery of microtubule-binding drugs.

4. Use of herpesviral VP22 protein or of another protein which has sequence homology with VP22 and a microtubule binding function of VP22, or a derivative thereof, for in the preparation of a medicament for delivery of a substance to cell microtubules.

5. Use according to claim 4 where the derivative is a coupling product comprising VP22 and another substance to be delivered to the microtubules.

6. Use of herpesviral VP22 protein or of another protein which has sequence homology with VP22 and a microtubule binding function of VP22, or a derivative thereof, as a reagent in-vitro to study microtubules or the cell cycle particularly at cell division.

7. Use according to claim 6 wherein the derivative is a coupling product of VP22.

8. Use according to claim 7 wherein the derivative is a fusion protein between VP22 and an indicator protein such as green fluorescent protein.

9. Use of herpesviral VP22 protein or of another protein which has sequence homology with VP22 and a microtubule binding function of VP22, or a derivative thereof, in an effective amount to retard or inhibit the cell division, or induce cell death, of animal cells.

10. Use according to claim 9, where the VP22 is used in antineoplastically effective amount to retard or arrest cell division of neoplastic cells in vitro or in vivo.

11. Use according to claim 9, in effective amount to inhibit the cell proliferation of a protozoal parasite in vitro or in vivo.